

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2004 (06.05.2004)

PCT

(10) International Publication Number
WO 2004/037356 A1

(51) International Patent Classification⁷: **A63B 69/36**

(21) International Application Number:
PCT/KR2003/002177

(22) International Filing Date: 17 October 2003 (17.10.2003)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
20-2002-0032113 28 October 2002 (28.10.2002) KR
20-2003-0005569 25 February 2003 (25.02.2003) KR

(71) Applicant and

(72) Inventor: KIM, Jae-Geon [KR/KR]; 204-1207, Mu-
gunghwa apt., Yeolpyeong-dong, Seo-gu, 302-280 Daejeon
(KR).

(74) Agent: WONJON PATENT FIRM; 8th Floor, Poonglim
Bldg., 823-1, Yeoksam-dong, Kangnam-gu, 135-784 Seoul
(KR).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

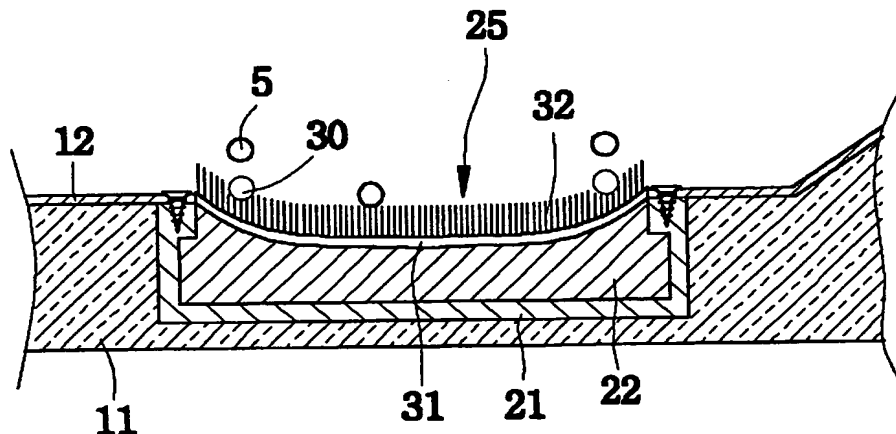
(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: GOLF TRAINING MAT



(57) Abstract: A golf training mat is provided, which includes a base mat, a bottom plate on the base mat, a receiving frame inserted on a portion of the base mat and the bottom plate, an artificial turf plate on the filling material, and artificial turf on the artificial turf plate. The receiving frame includes a tee-shot practice portion formed of a flat shape and an inclined practice portion filled with a filling material formed of a concaved shape. The artificial turf over the inclined practice portion includes a plurality of golf ball placing portions for placing a golf ball on the inclined practice portion. Therefore, the golf ball can be easily placed upon various inclined portions of the golf practice mat.

GOLF TRAINING MATT

Field of the Invention

5 The present invention relates to a golf practice mat used for placement of golf balls for practice hitting. The golf practice mat includes various inclined portions upon which the golf ball can be easily placed.

Background Art

10 A conventional golf practice mat is formed of an artificial turf on a supporting mat made by rubber or synthetic resin or is formed of an artificial turf in a portion to be located a golf ball on a supporting mat made by rubber. In both cases, the golf ball is placed on a flat region of the artificial turf.

15 On an actual golf course, there are flat areas and inclined areas. In case of hitting the golf ball from an inclined area, a golf player generally chops with an iron club or pushes with a wood club. However, a conventional golf practice mat is not generally designed for practicing an iron or a wood club.

20 That is, since the conventional golf practice mat for placing a golf ball is maintained with a flat portion and the mat does not have an irregular or inclined area like a real golf course, the conventional golf practice mat is not effective for simulating play on an actual golf course.

Disclosure of the Invention

It is therefore an object of the present invention to improve a golf practice mat for practicing hitting on various inclined portions upon which golf balls can be easily placed.

According to an embodiment of the present invention, a golf practice mat includes a base mat, a bottom plate on the base mat, a receiving frame inserted on a portion of the base mat and the bottom plate, an artificial turf plate on the filling material, and artificial turf on the artificial turf plate. The receiving frame includes a tee-shot practice portion
5 formed of a flat shape and an inclined practice portion filled with a filling material formed of a concaved shape. The artificial turf over the inclined practice portion includes a plurality of golf ball placing portions for placing a golf ball on the inclined practice portion. The golf ball placing portions are continuously formed on the inclined practice portion in a radial direction.

Brief Description of Drawings

The above objects and other advantages of the present invention will become more apparent by describing in detail preferred embodiments thereof with reference to the attached drawings in which:

15 Fig. 1 is a perspective view of a golf practice mat according to an embodiment of the present invention;

Fig. 2 is a plan view of a golf practice mat according to an embodiment of the present invention;

Fig. 3 is a sectional view taken along an A-A line in Fig. 2;

20 Fig. 4 is a sectional view taken along a B-B line in Fig. 2;

Fig. 5 is a sectional view taken along an A-A line in Fig. 2 having a golf ball placing portion;

Fig. 6 is a sectional view taken along a B-B line in Fig. 2 having a golf ball placing portion;

Fig. 7 is an enlarging view of a golf ball placing portion;

Fig. 8 is a plan view of an artificial turf mat showing a golf ball placing portion;

and

Fig. 9 is another embodiment of the present invention showing a golf ball placing
5 portion.

Best Mode for Carrying Out the Invention

Hereinafter, preferred embodiments of the present invention will be described in
detail with reference to the accompanying drawings. It should be noted that like
10 reference numerals are used for designation of like or equivalent parts or portion for
simplicity of illustration and explanation.

The present invention relates to a golf practice mat including a flat portion and an
inclined portion so that a variety of practices can be possible by using the golf practice
mat.

15 Fig. 1 shows a perspective view of a golf practice mat according to an embodiment
of the present invention. Fig. 2 is a plan view of the golf practice mat according to an
embodiment of the present invention.

Referring to Figs. 1 and 2, the golf practice mat includes a base mat 11 formed of
rubber or synthetic resin, an artificial turf mat 20 on a substantial middle portion of the
20 base mat 11, and a bottom plate 12 to fix the artificial turf mat 20 on the base mat 11. That
is, the artificial turf mat 20 is located inside of a portion of the bottom plate 12 and can be
fixed on the base mat 11 or detached from the base mat 11. According to an embodiment
of the present invention, the artificial turf mat 20 includes a tee-shot practice portion 20
having a flat portion and an inclined practice portion 25, the inclined practice portion 25

includes a golf ball placing portion like a groove (shown in Figs. 5, 6, and 7) for safely stopping a golf ball 5 on the inclined practice portion 25.

According to an embodiment of the present invention, the golf practice mat can further include a golf ball supplier 13 on a right side or on a left side of the artificial turf mat 11 and the location of the golf ball supplier 13 depends on a righty or a lefty. The golf practice mat can further include at least one advertisement portion 15 or 16 on the bottom plate 12.

Fig. 3 is a sectional view taken along an A-A line in Fig. 2. Fig. 4 is a sectional view taken along a B-B line in Fig. 2.

Referring to Figs. 3 and 4, the artificial turf mat 20 includes a receiving frame 21 formed of rubber or synthetic resin and shaped a substantial rectangle, a filling material 22 for filling inside of the receiving frame 21 which is formed of rubber or the like and has a flat or a curved shape, and an artificial turf plate 31 planted with artificial turf 32 for covering on the filling material 22.

The tee-shot practice portion 24 is formed at one side of the artificial turf mat 20 and the inclined practice portion 25 is formed at the other side of the artificial turf mat 20. The tee-shot practice portion 24 has a substantially flat shape and the inclined portion 25 having various shapes is inclined into a center direction. The tee-shot practice portion 24 can further include a tee-inserting portion (not shown) for inserting a tee (not shown) for placing a golf ball on the tee. The tee-shot practice portion 24 can further include a golf ball supplying portion (not shown) having a hole to supply a golf ball through a bottom when a golf ball supplier having a tee is used for supplying a golf ball on the tee from a bottom.

According to an embodiment of the present invention, the artificial turf mat 20 can

be inserted in the base mat 11 or detached from the base mat 11. After inserting the artificial turf mat 20 into the base mat 11, the bottom plate 12 covers the receiving frame 21, and the bottom plate 12 and the receiving frame 21 are fixed by using a fixing part 27 such as a screw, a nail, and the like. The filling material 22 is formed of soft material such as rubber, synthetic resin, and the like so that an impact is adsorbed when a golf club or a driver hits the filling material 22.

Fig. 5 is a sectional view taken along an A-A line in Fig. 2 having the golf ball placing portion, Fig. 6 is a sectional view taken along a B-B line in Fig. 2 having the golf ball placing portion, and Fig. 7 is an enlarging view of the golf ball placing portion.

Referring to Figs. 5, 6, and 7, the artificial turf mat 20 further includes a golf ball placing portion 30 for safely placing the ball on the inclined portion of the artificial turf mat 20. According to an embodiment of the present invention, the golf ball placing portion 30 is formed of short artificial turf compared to adjacent portion.

Fig. 8 is a plan view of the artificial turf mat showing the golf ball placing portion and Fig. 9 another plan view of the artificial turf mat showing the golf ball placing portion. As shown in Figs. 8 and 9, the golf ball placing portion 30 can be formed on inclined practice portion 25. The golf ball placing portion 30 can be the shape of one line or two lines as shown in Fig. 8 or can be the shape of several holes or grooves as shown in Fig. 9. The ball placing portion 30 can be made by cutting some portions of the artificial turf, but not limited to include other manufacturing methods. It is appreciated that the shape of the golf ball placing portion 30 is not limited as described here, but includes any shape which can safely place the golf ball.

Referring back to Fig. 1, the advertisement portion 16 is upwardly disposed at a rear portion to be easily seen from a player's the location display portion 14.

The golf practice mat is formed by inserting the artificial turf mat 20 in a portion of the base mat 11 and fixing the bottom plate 12 on the receiving frame 21 by using the fixing part 27. When a player starts to practice on the location display portion 14, the player can see the inclined installed advertisement portion 16 so that an advertisement effect is improved.

According to an embodiment of the present invention, the tee-shot practice portion 24 for practicing a tee-shot is flat like a real golf course so that the tee-shot practice can be similar to a game in the real golf course.

Further, when a player practices an iron club or a wood, if the practice is on a flat region, the practice is different from the practicing in the real golf course having curved or irregular portion. However, as the golf practice mat according to an embodiment of the present invention, includes a inclined practice region 25, the practice is similar to the practice in the real golf course by using an iron club or a wood. The inclined practice portion 25 includes various types of inclined region directed from an up-front to a rear-end, from a rear-end to the up-front, from a left side to a right side, and from a right side to a left side, so that various types of practice can be done.

Furthermore, the golf ball placing portion 30 is formed on the inclined practice portion 25 so that a golf ball can be easily stopped on the inclined portion.

The golf ball placing portion 30 can be formed of continuous one line or two lines as shown in Figs. 8 and 9. As the golf ball 5 is not easy to place on an inclined region, if the golf ball is placed on the inclined region, it can be within a scope of an embodiment of the present invention.

Although illustrative embodiments of the present invention have been described herein with reference to the accompanying drawings, it is to be understood that the

invention is not limited to those precise embodiments, and that various other changes and modifications may be affected therein by one skilled in the art without departing from the scope or spirit of the invention.

5 Industrial Applicability

Therefore, the golf ball can be easily placed in an inclined portion of the golf practice mat for utilizing in a real game by forming the golf practice mat having various inclining types because a surface of a real golf course is not flat but inclined.

What is claimed is:

1. A golf practice mat comprising:

a base mat;

a bottom plate on the base mat;

5 a receiving frame inserted on a portion of the base mat and the bottom plate ,
wherein the receiving frame includes a tee-shot practice portion formed of a flat shape and
an inclined practice portion filled with a filling material formed of a concaved shape;

an artificial turf plate on the filling material; and

artificial turf on the artificial turf plate.

10

2. The golf practice mat of claim 1, wherein the artificial turf over the inclined
practice portion includes a plurality of golf ball placing portions for placing a golf ball on
the inclined practice portion.

15 3. The golf practice mat of claim 2, wherein the golf ball placing portions are
continuously formed on the inclined practice portion in a radial direction.

Fig. 1

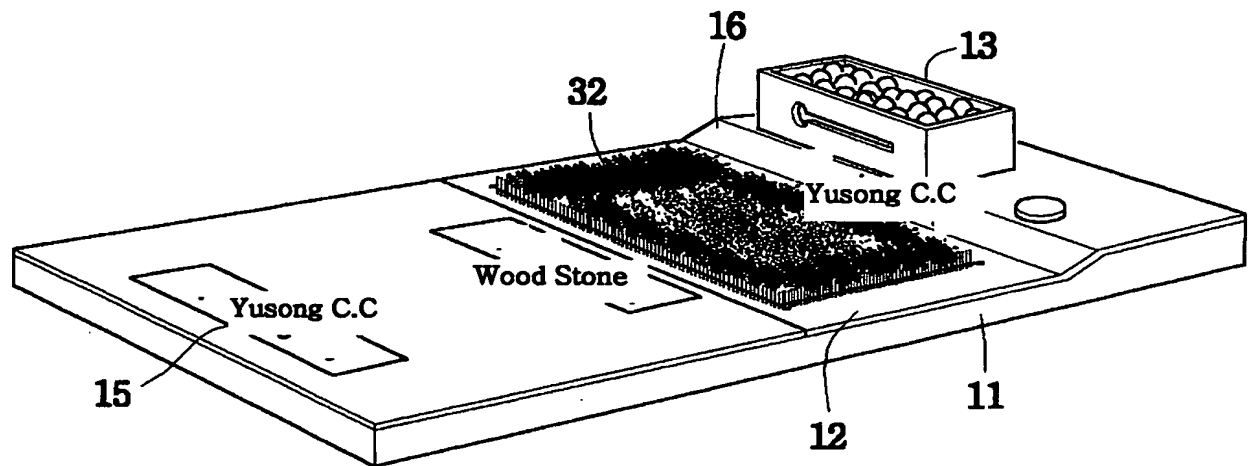


Fig. 2

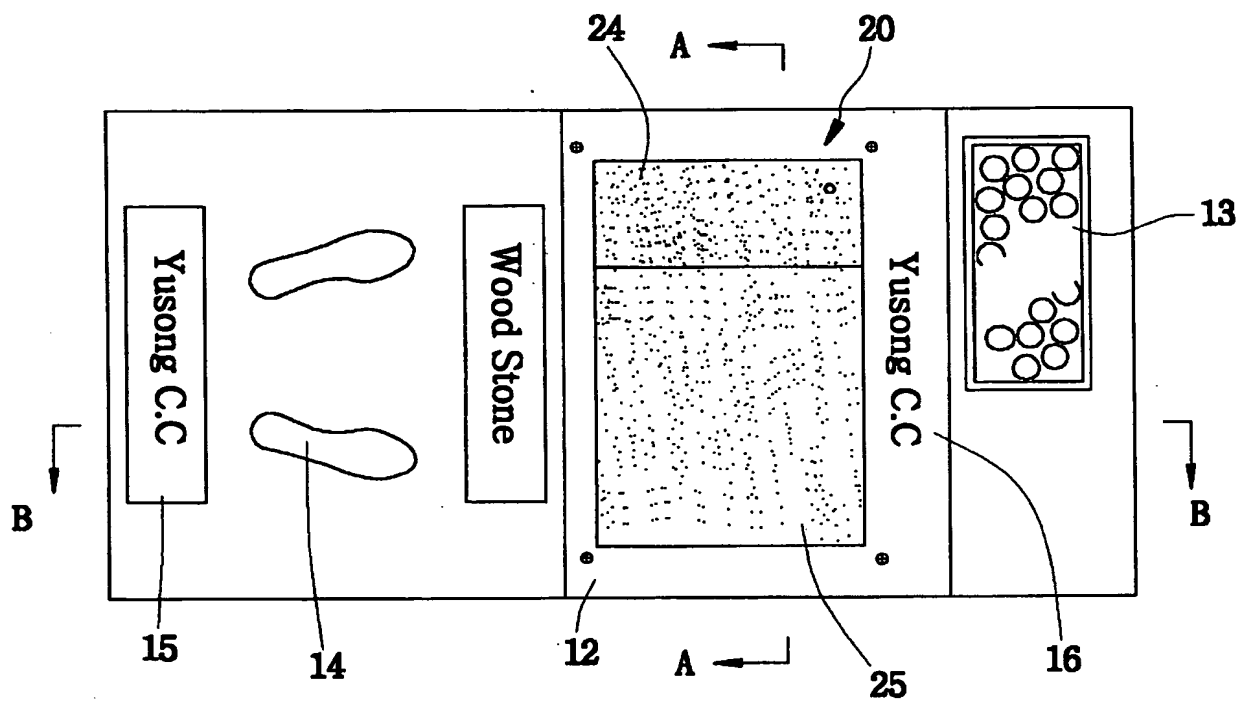


Fig. 3

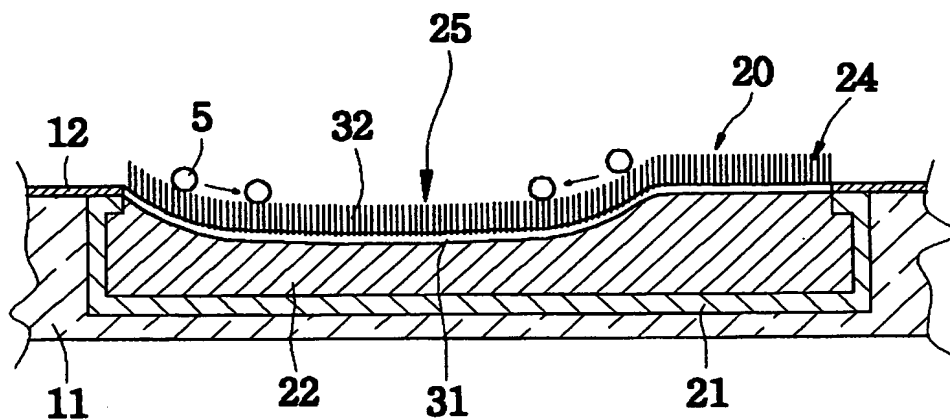


Fig. 4

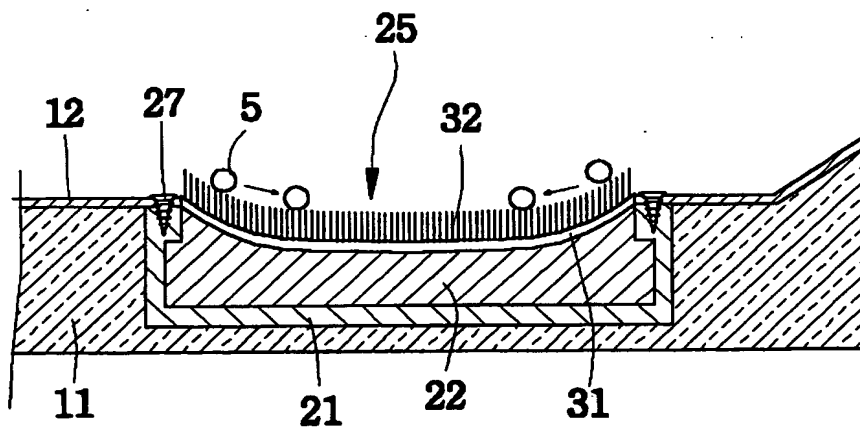


Fig. 5

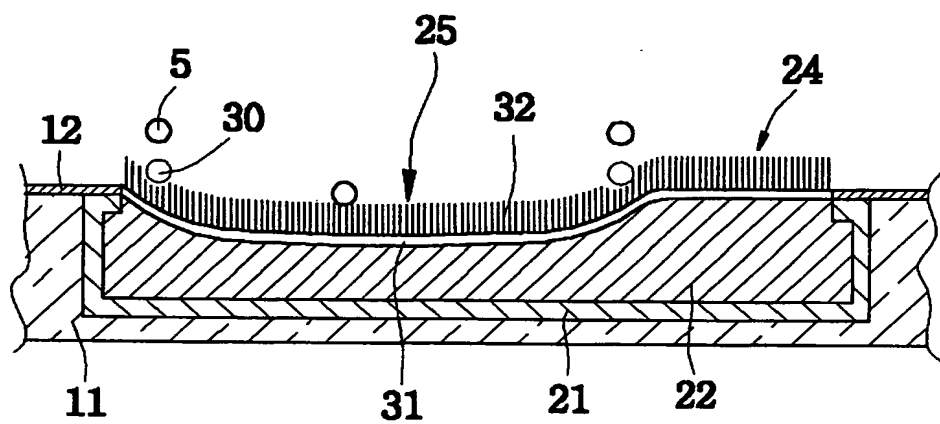


Fig. 6

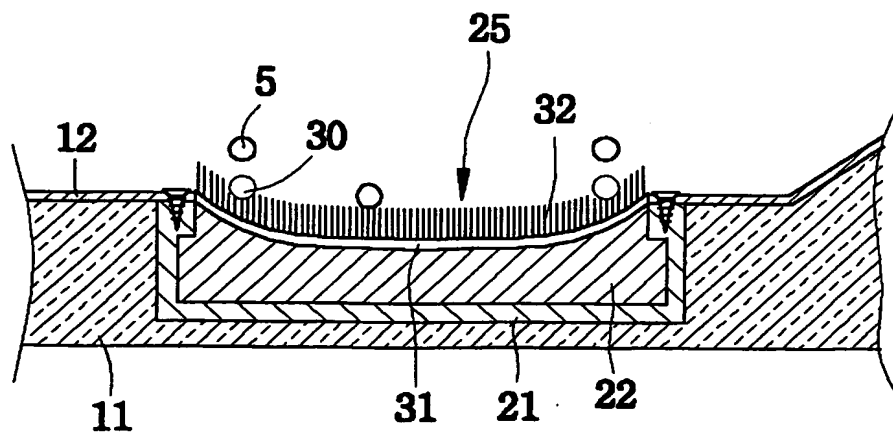


Fig. 7

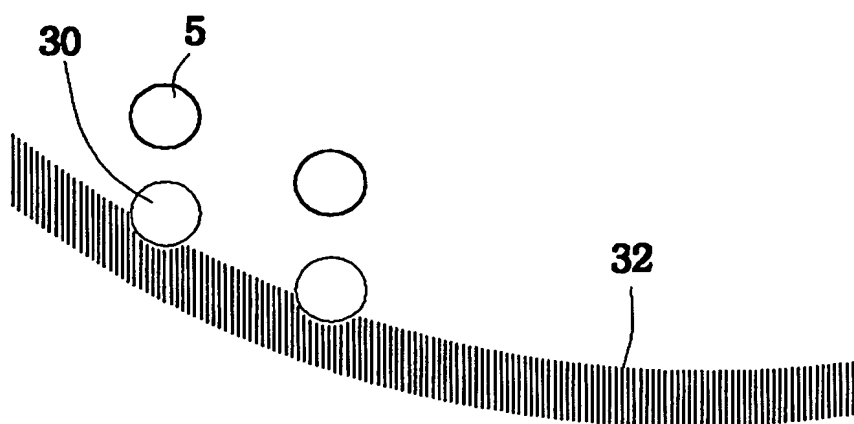


Fig. 8

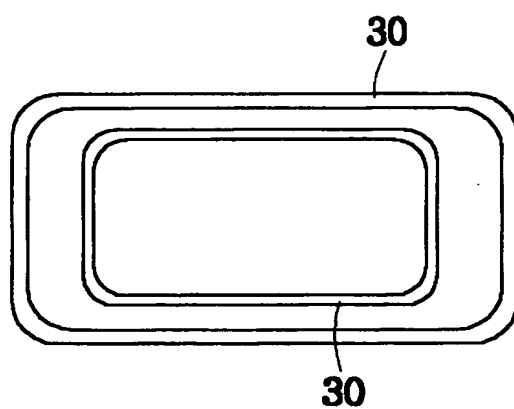
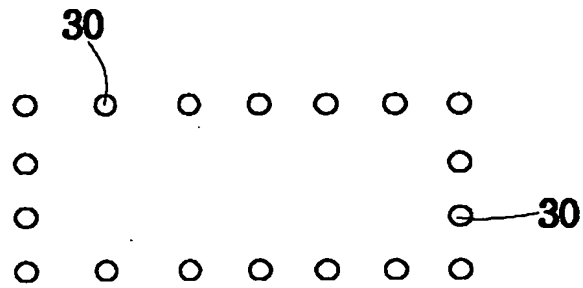


Fig. 9



INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2003/002177

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 A63B 69/36

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 A63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
KR, JP: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 006156396 A(Florian; Raymond)05 DECEMBER 2000 See the whole document	1
A	US 005156398 A(Kibamoto; Hiroji)20 OCTOBER 1992 See the whole document	1-3
A	US 005026580 A(Hammon; Mark A)25 JUNE 1991 See the whole document	1-3
A	US 004932663 A(Makar; John)12 JUNE 1990 See the whole document	1-3
A	US 005593355 A(Beaver; Michael L)14 JANUARY 1997 See the whole document	1-3

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search

29 JANUARY 2004 (29.01.2004)

Date of mailing of the international search report

29 JANUARY 2004 (29.01.2004)

Name and mailing address of the ISA/KR



Korean Intellectual Property Office
920 Dunsan-dong, Seo-gu, Daejeon 302-701,
Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

SEOK, Ki Cheol

Telephone No. 82-42-481-5455

